Safety Advisory Committee
September 17, 2010
10:00 AM – 12:00 PM

Minutes

Committee Member	Representing	Present
Anderson, Erik	Materials Sciences Division	X
Bello, Madelyn	Human Resources Advisor	X
Blodgett, Paul M.	Environment, Health and Safety Division	X
Cademartori, Helen	Information Technology Division	
Carithers, William	Physics Division	
Christensen, John N.	Earth Sciences Division	X
Earnest, Thomas N.	Physical Biosciences Division	
Floyd, Jim	Safety Advisory Committee Chair	X
Fujikawa, Brian	Nuclear Science Division	X
Ji, Qing	Accelerator & Fusion Research Division	
Lukens Jr., Wayne W.	Chemical Sciences Division	X
Lunden, Melissa	Environmental Energy Technologies Division	
Martin, Michael C.	Advanced Light Source Division	X
More, Anil V.	Office of the CFO Advisor	
Patterson, Pam	Public Affairs Advisor	
Pollard, Martin	Genomics Division	
Taylor, Scott E.	Life Sciences Division	X
Tucker, Eugene	Facilities Division	X
Thomas, Patricia M.	Safety Advisory Committee Secretary	X
Walter, Howard	Computing Sciences Directorate	X
Wong, Weyland	Engineering Division	X

Others Present: Michael Carr, Richard DeBusk, Joe Dionne, Ross Fisher, Doug Fleming, Keith Gershon, Gita Meckel, Bob Mueller, Scott Robinson, Nancy Rothermich, Mike Ruggieri, David Shuh, Bill Wells

Recognition of Welding Safety Team – Joe Dionne

Spot awards were presented to Theresa Duque, Jim Floyd, Mike Kritscher, Eugene Tucker, and Weyland Wong for their work in developing the new welding safety requirements. It was a good example of Environment, Health and Safety (EHS) and Engineering working together on safety and technical issues.

Chairman's Comments – Jim Floyd

This month, we will follow up on some important issues that were discussed in the August meeting, including the EHS policies "pipeline", access control, electrical work authorizations, and hazardous materials transportation.

Environmental Health and Safety (EHS) Issues – Doug Fleming

- **Organizational changes:** Don Lucas has accepted a new EHS Assurance Systems Manager position. He will be responsible for overseeing the Technical Assurance Program, EHS Division Self-Assessment, and other assessments and inspections that support Department Of Energy (DOE) and LBNL needs. The EHS Deputy position is open. There will be a new EHS Communications Manager to coordinate outreach to LBNL Divisions and committees. This position is also open. The service organization will be realigned to better meet customer needs.
- **Efficiency initiatives:** EHS is reviewing their processes to identify value added steps and bottlenecks. The goal is to create more sensible and efficient processes. University of California Office of the President, Berkeley Site Office, and EHS are reviewing contract requirements to determine whether all the safety orders specified are still relevant to LBNL safety. They are identifying inefficient processes (such as Job Hazards Analysis). There are some overlaps between the efficiency initiatives and the Health, Safety and Security (HSS) audit Corrective Action Plan (CAP) Requirements Management effort. Some specific processes identified for improvement include:
    - **Accident reporting** – The Supervisors Accident Analysis Report (SAAR) process is being re-engineered.
    - **Relocations** – EHS is working with Facilities to develop a "Smart Moves" system for upcoming office and lab moves.
    - Emergency response information – Emergency Services is planning to improve communication of hazards in buildings to emergency responders by developing "run cards" that describe the hazards for each area. Committee members have questions about how this system will work. Dan Lunsford will be invited to the next meeting to talk about it.
    - **Access control**—Gita Meckel is prioritizing completion of access control systems for high-risk areas and Donner Lab.

  Scott Taylor asked whether the CC1 policy development process is being used in all the new initiatives. Doug Fleming will be talking about the proposed changes at the Division Directors' meetings and Business Council meetings. There may be some changes that are not "policies".

Access Control – Gita Meckel

Gita Meckel has just been assigned as the manager of the access control project. She will be engaging stakeholders, benchmarking with other organizations, and looking at institutional requirements. We need to continue to make progress in implementing systems in high-risk areas. The current process is more complicated than it needs to be. Howard Walter encouraged EHS to go forward with the plan for the National Energy Research Scientific Computing Center (NERSC), which has fewer safety issues and might be a good place for a pilot project. Scott Taylor asked whether the CC1 process is being followed, including identifying external requirements. The Safety Advisory Committee could help to get a user group together. Jim Floyd commented that access control involves more than just safety – there are Security, Human Resources, and Information Technology challenges also.

Hazardous Materials Transportation – Doug Fleming

There has been a series of incidents related to mislabeling of packages and miscommunication of hazardous materials transport requirements. There is an investigation underway, and the results will be reported later. Office of Contract Assurance is managing the investigation. People are either not understanding or not following the directions given to them. We need to understand why this is happening, and where the process is breaking down.

There was a discussion last month about when and where Department of Transportation (DOT) regulations are applicable. According to the federal regulations, it is at the point where the material is offered for shipment. LBNL instructions have been ambiguous about who can take materials to Bldg. 69. Can they be hand-carried, or are we required to call Transportation for pick-up? Is picking up a FedEx package from shipping allowed? Wayne Lukens will provide information about the issues to EHS. Wayne explained that the regulations say commerce begins when a carrier picks up packages and ends when a carrier drops the package off. There are several organizations involved in the shipping process. There are internal risk decisions involved as well as federal regulations. Nancy Rothermich commented that DOE does not accept some DOT exclusions. There were questions about which DOE Order(s) apply. Jim Floyd asked for clarification now, because we are at risk of non-compliance if people do not know the requirements. Gale Moline was the point of contact, but he has left LBNL. Doug Fleming is the point of contact now. Bill Wells is part of the investigation team. He advised people preparing hazardous materials for shipment to call Shipping because they will provide the proper packages and labels. The new "Click and Ship" system does require training, but it is only about 15 minutes on-line. There was a suggestion that Facilities could provide a pack-and-ship service. It takes researchers an extra day to complete the step of preparing a package for shipment, and there were comments that a day is too slow to meet researchers' needs.

Injury and Illness Reporting -- Ross Fisher

HSS Corrective Action D3 addresses a finding that our injury and illness reporting process did not effectively identify and correct ISM deficiencies. A gap analysis found that the process substantially meets regulatory requirements. Benchmarking was performed at 6 other Office of Science Labs and 2 corporate facilities (Honeywell, Sandia). Some sites have additional review elements and quality check programs. A decision was made to staff the injury and illness reporting function with the equivalent of a full-time resource. The requirements and guidance in PUB-3000, Section 5.1 will be clarified. We have a more robust Issues Management program now than when the PUB-3000 chapter was written. The fundamental principle of Line Management Ownership remains. The "bottom line" is preventing recurrence. The complex review system with 4 or 5 people interviewing the victim can be intimidating. Regulations require that we submit the report quickly. EHS proposes to act as a "one stop shop" to provide service and support to supervisors for data collection, causal analysis, and drafting the report. The current 3 reports will be consolidated into 1 report. EHS will work with Line Management to prepare the report. We have been concentrating too much on writing reports on schedule and checking off corrective actions and losing sight of the goal of

preventing injuries. The emphasis will be on Issues Management, with Line Management owning the corrective actions. Jim Floyd commented that there would be an effectiveness review for the new reporting process, so EHS needs to keep good documentation on how the system was developed. The schedule is to revise PUB-3000 by October 1st, to be followed by a training period for applicable personnel (Division Safety Coordinators). The Division Liaisons are not required to be involved.

Peer Review Status – Jim Floyd

The ESH Peer Review for Materials Sciences Division (MSD) has been completed. Three issues were evaluated: supervisor span of control, supervisor/work lead roles and responsibilities, and new employee/student orientation. The review team included Ken Downing, Michael Martin, Scott Robinson, and Jim Floyd. They asked to see typical Hill and campus operations. They conducted interviews of supervisors, work leads, and staff, using HSS-style questions. They also reviewed Job Hazards Analyses (JHAs). They found some good practices, such as assigning mentors to new people. PIs walk through labs and talk to their people frequently. There was a concern that because the mentoring system is informal, it could "creep" over time with staff turnover. There is a potential for inadequate controls in non-routine chemical operations. The JHA system does not match how the work lead system really functions, with people having different work leads for different activities. MSD people interviewed liked the training aspect of the JHA system, and liked having courses available through LBNL that are not offered on campus.

Electrical Work Authorizations – Keith Gershon

Everyone must be able to answer the question, "How were you qualified and authorized to do your work?" The Occupational Safety and Health Administration (OSHA) requires qualification for everyone permitted to enter the limited approach boundary (42" for $\leq$ 750 V exposed electrical energy) and demonstration of skills in 10 discrete areas. The hazards and controls are different for each type of work. No one set of classes meets all training needs. PUB-3000, Section 8.7.1, requires an Activity Hazard Document (AHD) or equivalent authorization for exposed electrical work $\geq$ 50 V and 5 mAmps. No one formally submitted a proposal for an alternate authorization, so EHS is proposing one. They are beta testing an electrical "qual card" system. The forms are in Keith Gershon's electrical safety database (electrical safety.lbl.gov). The questions on the application form are similar to the AHD electrical schedule. It requires a combination of classroom training, on-the-job training, and demonstration of skills to become authorized. Keith Gershon, Bob Mueller, and Robert Candelario are doing work observations. Training is provided on the spot at the time of the work observation.

Each work authorization is unique. For example, Keith Gershon worked with a field team installing energy-efficient appliances in homes. They needed to be qualified to do Lockout/Tagout, and needed to understand the hazards of household electrical systems. They started with a test to determine their state of knowledge. They defined a scope of work, and helped develop a checklist of field location conditions. Another example was a qualification for computer technicians that need to work on computer room equipment. They required a different checklist of skills. The third example was Engineering electrical maintenance technicians at the Advanced Light Source. Development of their

authorizations is in progress. Each employee will have his or her own signed observation card, which can be uploaded to the electrical safety database. The supervisor signs the authorization, based on the observation report.

There was a question about how an authorization could be developed for Donner or Potter labs. The application requires arc flash calculations. There are no wiring diagrams for Donner or Potter. Keith Gershon responded that there are ways the calculations can be done, and people should contact him if they need assistance.

There was a question about whether the system applies to Facilities. They can use this system or an equivalent authorization.

We need to build a schedule to phase in the authorizations. Each Division should identify its high-priority tasks. Some technicians are already Qualified Electrical Workers. The goal is to do one or two authorizations per month. It may work better to do some of the easier ones first. Scientists can be qualified and authorized to do electrical work on their own equipment.

The electrical safety database is not tied to EHS Training or any other databases. It will need to be integrated in the long term. It will be possible to upload signed qual cards to related AHDs.

The meeting was adjourned at 12:03 PM
Respectfully submitted, Patricia M. Thomas, SAC Secretary